

I CLAIM:

1 1. A method of determining a current draw of a pump
2 driven by an electric motor having a power line and a motor-
3 control circuit connected to said power line, said method
4 comprising the steps of:

5 (a) measuring a voltage drop across at least a portion
6 of a conductor having a definite resistance and connecting said
7 power line with said motor-control circuit; and

8 (b) calculating said current draw from said voltage
9 drop.

1 2. The method defined in claim 1 wherein said portion
2 of said conductor having said resistance is a piece of current
3 supply line connecting the power line with said motor-control
4 circuit.

1 3. The method defined in claim 1 wherein the voltage
2 drop is measured and the current draw is calculated from said
3 voltage drop by a computing unit forming part of said motor-
4 control circuit.

1 4. The method defined in claim 1 wherein a current
2 measured in said portion of said conductor is converted into a
3 current draw of said pump.

1 5. The method defined in claim 1 wherein in
2 calculating said current draw from said voltage drop, a computer
3 unit forming part of said motor control circuit compensates for a
4 temperature of said portion of said conductor.

1 6. An electronically controlled beam especially
2 comprising:

3 an electric motor having a power line connected thereto
4 for energizing said electric motor;

5 a motor control circuit connected to said motor and
6 said power line for electronically controlling said pump
7 assembly;

8 a pump driven by said motor; and

9 means for measuring a voltage drop across at least a
10 portion of a conductor having a definite resistance and
11 connecting said power line with said motor control circuit and
12 calculating said current draw from said voltage drop.

1 7. The assembly defined in claim 6 wherein said
2 portion of said conductor is a piece of resistance wire with a
3 known specific resistance and a defined length.

1 8. The assembly defined in claim 6 wherein said
2 portion of said conductor is a bridge between a plug contact to
3 which said power line is connected and a printed circuit board
4 carrying said motor control circuit, said bridge having a defined
5 resistance.

1 9. The assembly defined in claim 6 wherein said
2 resistance is between 1 and 5 m Ω .

1 10. The assembly defined in claim 6, further
2 comprising a processor forming part of said motor control circuit
3 and constituting the means for measuring and calculating.

1 11. The assembly defined in claim 10 wherein said
2 processor is provided to compensate for the temperature of said
3 portion of said conductor.

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